

CHRONIC PAIN MANAGEMENT WITH OPIOIDS: AN ASSESSMENT OF ALASKA  
NURSE PRACTITIONER PRACTICES

By

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CHRONIC PAIN MANAGEMENT WITH OPIOIDS: AN ASSESSMENT OF ALASKAN  
NURSE PRACTITIONER PRACTICES

A  
PROJECT

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By

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**Abstract**

The purpose of this project was to determine chronic opioid pain management practices of Alaskan Nurse Practitioners (NPs) in primary care, compare them to best practices, and describe perceived barriers to evidence-based guideline use. Participants included NPs in Alaska who work in primary care and currently have an active Alaska NP license and Alaska mailing address. This project answered the questions of to what extent primary care NP practices are consistent with current Federation of State Medical Boards (2013) guidelines when managing chronic non-cancer pain with opioid therapy as well as identified the perceived barriers to guideline use. A cross sectional, descriptive design was used. The principal investigator mailed a paper survey to a convenience sample of NPs in Alaska. Nurse practitioners in Alaska follow guidelines when initiating opioid therapy most of the time, with all but three guidelines being followed 'very frequently' by at least 50% of respondents. Respondents follow guidelines less often when managing opioid therapy with only one guidelines being followed 'very frequently' by at least 50% of respondents. Two major barriers to guideline use include resource and knowledge barriers. The findings of this project were used to make clinical recommendations for improved practice.

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## **Introduction**

Chronic pain affects one-third of adults living in the United States (Johannes, Le, Zhou, Johnston, & Dworkin, 2010). Chronic pain increases with age, with 55 to 64 year olds showing the highest prevalence (Johannes et al, 2010). The American Academy of Pain Medicine (AAPM) (2013) recognizes relieving chronic (non-cancer) pain with opioids as a legitimate medical practice. With today's aging population, providers should be more comfortable and competent when prescribing opioids for managing chronic pain.

Not surprisingly, the number of those abusing, diverting or selling opioids has increased which is consistent with the increased use and prescription of opioids. The abuse of opioids has risen at such a rate that reducing the nonmedical use of prescription pain medications is listed as an objective for the Healthy People 2020 initiative (Office of Disease Prevention and Health Promotion, 2015). Along with the increase in abuse of opioids, there has also been an increase in adverse events and fatalities directly related to opioid use (ASIPP, 2012). Between 2001 and 2010, there were 283 hospitalizations due to prescription opioid poisoning or overdose reported in Alaska's Trauma Registry (Alaska Department of Health and Social Services, 2012). According to the National Poison Data System there were a total of 1,422 opioid-related toxicities between 2001 and 2010 in Alaska (Alaska Department of Health and Social Services, 2012). The rising rate of opioid abuse and adverse events causes concerns among providers managing prescription opioids.

### **Significance to Alaska Advanced Nursing Practice**

The responsibility of the Advanced Practice Registered Nurse, including NPs, is to provide effective pain relief as well as prevent abuse (Alaska Board of Nursing [ABON], 2009). In Alaska in 2012, there were 123 drug overdose deaths and 71 (57.7%) of those deaths were due

to prescription drugs (Alaska Bureau of Vital Statistics, 2014). More specifically, 51 (41.5%) of drug overdose deaths were due to prescription opioids. Alaska currently has the 29th highest drug overdose rate in the United States, with prescription opioids being the most commonly involved drug (Centers for Disease Control, 2013).

In addition to the increase in abuse, there has been an increase in problems, including addiction, due to prescription opioid abuse. According to the National Survey on Drug Use and Health (NSDUH) (2013), 746,000 people received treatment for the abuse of prescription pain medication in 2013 compared to 360,000 in 2002. Not only was there an increase in the abuse and treatment of abuse of prescription opioids, the NSDUH results showed of the 4.5 million Americans currently abusing prescription opioids, 21.2% obtained them from their provider compared to 4.3% who obtained them from a drug dealer (NSDUH, 2013). This leads to the need for increased provider responsibility, as well as increased challenges, when managing chronic pain with opioids.

Each state determines NP prescriptive authority. In Alaska, NPs are authorized to prescribe, dispense, administer, and procure schedule II to IV controlled substances (Drug Enforcement Administration [DEA], 2015). With a greater ability to prescribe controlled substances, NPs in Alaska have a greater responsibility to practice in a safe and evidence based manner when managing chronic pain with opioids. The Advisory Opinion of the Alaska Board of Nursing (ABON) (2009) states NPs in Alaska are required to be knowledgeable and competent as well as being responsible in the management of acute and chronic pain. According to the Advisory Opinion, the NP is responsible to be educated in the appropriate guidelines, recommendations and regulatory policies and procedures when prescribing opioids. The

prescriptive autonomy of NPs in Alaska requires great responsibility in the management of chronic pain with opioids.

NPs in Alaska have prescriptive authority to prescribe controlled substances, including opioids, therefore it is the duty of the NP to diagnose and evaluate effectiveness of pain management. The NP is responsible to provide effective, evidence based treatment when managing chronic pain as well as identifying potential for opioid drug abuse. Prescription opioid poisonings and overdose deaths are a concern in Alaska. It was unknown to what extent NPs in Alaska are following the recommended guidelines when prescribing opioids to manage chronic, non-cancer pain in primary care. The complex nature of managing opioids for chronic pain leads to the need to follow specific guidance in regards to best practice.

### **Purpose**

The purpose of this project was to describe the extent to which primary care NP practice in Alaska are consistent with current recommended guidelines when treating chronic pain with opioids, to describe perceived barriers to following guidelines and to make recommendations for improved clinical practice.

### **Literature Review**

#### **Increased Use and Abuse**

The prescription of opioids, as well as the sale, use and abuse has been increasing steadily. Contributing to the increase in prescription was the increase in awareness of pain management largely due to national policy changes. In 1996, the American Pain Society introduced “Pain as the 5<sup>th</sup> Vital Sign” and shortly thereafter, the Joint Commission as well as the Veterans Health Administration (VHA) adopted policies to raise awareness to the patient’s right

to adequate pain relief (VHA, 2000). The VHA released a toolkit in 2000 which discussed models for addressing pain including routine pain screening using the 0-to-10 Numeric Rating Scale, documenting the pain rating as part of the vital sign record and then completing a comprehensive pain assessment and plan for pain management. It also recommended reassessing pain to identify efficacy of intervention (VHA, 2000). The Joint Commission released new standards in 2000 regarding pain assessment and management which were to be followed by facilities including ambulatory care, behavioral health care, home care hospitals, long-term care, long-term care pharmacies and management behavioral health care organizations (National Pharmaceutical Council, 2001). With the increase in focus on pain management, there was also an increase in patient abuse of medications used to treat pain.

Abuse is defined as the unlawful use of any substance, with misuse defined as the use of a controlled substance for reasons other than for which it was legitimately prescribed (Butler, Fernandez, Beoit, Budman, & Jamison, 2008; The American Heritage Dictionary, n.d.). Manchikanti, Boswell and Hirsch (2013) systematically reviewed the literature on the abuse of pain-relief medications with a focus on healthcare costs. The reviewers found global production of morphine increased dramatically, from 168 tons in 1993 to a projected 788 tons in 2012 which was more than a fourfold increase. Similarly, the production of oxycodone rose over 4000%. In addition to production, the sales of scheduled medications have increased including opioid analgesic sales quadrupling between 1999 and 2010. As expected, increased production and sales have paralleled an increase in consumption. The Pain and Policy Studies Group (PPSG) (2014) analyzed legitimate global opioid consumption and found that total morphine equivalent (ME) usage per capita (mg/person) increased globally from 3.62 mg/per capita in 1980 to 59.8 mg/per capita in 2012. The ME is a metric utilized by the International Narcotics Review Board to

provide data combining the six main opioids use to treat pain: fentanyl, hydromorphone, methadone, morphine, oxycodone and pethidine (PPSG, 2014). There has been a vast worldwide increase in the production, sales and use of opioids.

Coinciding with production and consumption, the abuse of prescription opioids has risen. Young people are among those who are abusing opioids at an increasing rate. According to a 2009 study investigating various motives of nonmedical prescription drug use, college student misuse of prescription drugs was at its highest level when compared to the previous 15 years (McCabe, Boyd & Teter, 2009). Lord, Brevards and Budman (2011) surveyed 527 college students to discover motives and attitudes associated with nonmedical use of prescription opioids. This study showed that 61% of young adults had misused prescription opioids and prescription stimulants at some point in their lives with the majority of the misuse occurring within the past year. Most of the young adults studied said they first misused prescription medications in junior high (8%) or high school (56%).

The studies on young adult prescription opioid abuse did not specify the source of the medication, but according to the NSDUH survey, which includes participants aged 13 years or older, more than half (53%) of those surveyed who currently abused pain relievers had obtained them from a friend or family member for free (SAMHSA, 2013). Of those surveyed who obtained the prescription pain reliever from a friend or family member, 83.3% reported their friend or family member received the medication from only one doctor. According to a web-based survey of 27,035 respondents, chronic pain increased with age, with the most prevalent age category being 55 to 64 years old (Johannes et al, 2010). With the aging population, the number of adults being treated for chronic pain will continue to increase.

Although young people are abusing prescription opioids at increasing rates, they are not the only population abusing these medications and suffering consequences from abuse.

According to the annual mortality data from the Center for Disease Control (CDC) (2011), the highest rate of opioid analgesic poisoning deaths occurred in those between 45 and 54 years of age. There were 10.9 deaths per 100,000 resident population in this age range in 2010 compared to 2.9 deaths in 1999. When categorized by gender, there were 12 male deaths per 100,000 in the 45 to 54 year old range compared to 9.8 female deaths. This age range has consistently had the highest mortality rate due to opioid pain medications. This information, along with the studies on young adult abuse, illustrate prescription opioid abuse affects several demographics.

### **Managing Chronic Pain with Opioids**

While pain specialists accounted for the highest rate of opioid prescriptions (48.6%) in a study on opioid prescribing rates from 2007 to 2012, Levy, Paulozzi, Mack and Jones (2015) found that primary care providers prescribed the most opioids. Levy et al. assessed opioid prescribing rates by specialty from 2007 to 2012 by grouping and analyzing data from Intercontinental Marketing Services (IMS) Health's National Prescription Audit and found that of the 4.2 billion prescriptions filled in U.S. pharmacies and long-term care facilities, 6.8% (289 million) were for opioids. Of the opioid prescriptions filled, 44.5% were ordered by primary care practitioners, more so than pain specialists, orthopedic specialists, surgeons or dentists. Levy et al. also found a 3.7% overall increase in opioid prescriptions from 2007 to 2012 according to the audit. These studies did not differentiate between short or long term opioid prescribing practices.

## **Attitudes and Beliefs**

Franklin, Fulton-Kehoe, Turner, Sullivan, and Wickizer (2013) surveyed providers and found there has been an increase in provider concern in regards to chronic pain management, especially in the primary care setting, with provider concern increasing from 54% in 2009 to 72% in 2013. There have been several studies discussing attitudes and beliefs of providers regarding opioid prescribing to treat chronic pain which help identify barriers to best practice. Hooten and Bruce (2011) surveyed 128 healthcare providers to assess beliefs and attitudes regarding managing chronic pain with prescription opioids. Of those surveyed, 58% said they were likely to prescribe opioids for chronic pain but indicated prescribing opioids had the potential to dramatically add to the complexity of caring for the patient. The researchers identified education gaps in regards to opioid prescribing by healthcare providers. In addition to attitudes and beliefs, there has been research to identify provider knowledge and views regarding chronic pain management with opioids. Jamison, Sheehan, Scanlan, Matthews and Ross (2014) surveyed primary care providers ( $n=56$ ) to determine their knowledge about opioids, thoughts about drug abuse and thoughts about managing chronic pain with opioids. Of those surveyed, the majority (84%) had concerns when managing opioids for chronic pain. More specifically, providers felt managing opioids for chronic pain was stressful with 82% of those surveyed having concerns about addiction. Of the providers who responded, 46% indicated they were not adequately trained in prescribing opioids. This study also found younger providers reported less confidence and more concerns about opioid dependency than older providers. By assessing attitudes and beliefs of providers managing chronic pain with opioids, knowledge as well as confidence barriers to best practice were identified.

## **Prescription Drug Monitoring Programs**

Prescription Drug Monitoring Programs (PDMPs) are databases that store information on controlled substances so prescribers can access the data to deter abuse, doctor shopping and diversion (Worley, 2012). PDMPs are managed at the state level with each state being responsible for creating and funding their state's program. As of 2014, every state had a PDMP except for Missouri which had pending legislation (The National Alliance for Model State Drug Laws, 2014). Accessing and utilizing PDMPs are recommended by many guidelines and there have been several studies done to assess perceptions and use of PDMPs.

Kelly (2013) surveyed 141 Florida Emergency Room physicians asking questions regarding management strategies when prescribing controlled substances and accessing the state's PDMP. The researcher concluded there was a clear indication for more education and special training in the management of narcotic abuse. Kelley (2013) found there was poor utilization of tools including patient history, physical exam, the state's PDMP, and drug screens to identify misuse and abuse. This study highlights the need for additional education as well as resources when managing chronic pain with opioids.

Dowler (2013) assessed provider's perception of Oregon's PDMP by surveying those who have access, including physicians, NPs, dentists and pharmacists. Respondents provided feedback on the usefulness of the state's PDMP as well as the website. Most of the suggestions for additions to the website reported by those surveyed pertained to interventions once the PDMP had been utilized such as resources for substance abuse treatment, making referrals as well as providing recommendations once patients with substance abuse problems had been identified. In addition to identifying a patient who is potentially misusing drugs, at least 80% of those surveyed felt potential resources such as guidelines for pain management as well as guidance

with patient interaction while the provider is using the PDMP would be useful. Overall, education as well as substance abuse resources were identified barriers when utilizing the PDMP.

### **Guideline Utilization**

Several organizations have created evidence-based guidelines and recommendations to promote safe opioid prescribing practices as well as preventing or identifying abuse. Franklin et al. (2013) surveyed 856 providers in Spokane, Washington on the changes in practice as well as the use of support tools when prescribing opioids for non-malignant pain. Only 40.1% of advanced practice nurses surveyed, including NPs, were aware of opioid dosing guidelines compared to 70.9% of physicians. Respondents identified limited access to pain specialists as a barrier to guideline adherence, even in the largest city in eastern Washington 45% of respondents reported a limited ability to obtain a consultation to a pain specialist. The researchers identified that providers who practiced in a healthcare facility with specific opioid prescribing guidelines were less likely to completely stop prescribing opioids as a practitioner and were less concerned about problems that can occur when prescribing.

Rather than surveying providers, Sekhon, Aminjavahery, Davis, Roswarski and Robinette (2013) reviewed patient charts to determine compliance with opioid treatment guidelines in primary care at a Veterans Affairs Medical Center (VAMC). Of the 800 patient charts reviewed, the researchers found provider practices varied widely with respect to the use of opioid management guidelines. Veterans Affairs/Department of Defense (2010) guidelines include developing written opioid pain care agreements and at least one urine drug screen at some point during treatment. Of the charts reviewed, only half of the patients had signed written agreements and had at least one drug screen at some point during treatment. The researchers also found when a patient had a written agreement in their health records, they were at a lower risk of

displaying aberrant drug related behavior (OR 0.81,  $P < .01$ ) (Sekhon et al., 2013). Of the patients who had urine drug screens, drug panels which included oxycodone testing were only selected 53% of the time. Sekhon et al. postulated this may be due to a lack of knowledge that standard urine drug screens do not include oxycodone and that it has to be ordered separately, although there was no data to support this assumption. The patients who were found to have positive urine drug screens for illicit drugs or negative urine drug screens when prescribed opioids often did not have intervention with only 28% having documented discontinuation or discussion with their provider. The researchers concluded there was a need for further education for primary providers to enhance guideline use adherence. Although there are tools and guidelines available, education appears as a common barrier identified by much of the research discussed.

### **Evidence-Based Practice**

Many of the available guidelines for treating chronic pain with opioids in primary care setting include similar recommendations, although there are some areas of inconsistency. The majority of guidelines are specific to long-term, or chronic opioid use which is defined as the use of opioid therapy for 90 days or longer (American Society of Interventional Pain Physicians [ASIPP], 2012). Alaska does not have a formal medical or nursing board position focused on the use of controlled substances in the treatment of chronic pain (Bolen, 2008). The Alaska Board of Nursing (ABON) has adopted the Federation of State Medical Boards (FSMB) Policy Statement on the use of controlled substances to treat chronic pain (Bolen, 2008). The most recent Advisory Opinion (ABON, 2009) on the use of controlled substances for pain management discusses the accepted standards as mentioned in the FSMB (2013) Policy Statement. ABON

Advisory Opinions do not constitute mandatory practices standards, rather they are official opinions and recommendations to guide nursing practice.

The FSMB (2013) provides a detailed model policy including steps to initiating opioid therapy as well as management of therapy (Table A-1). Prior to starting therapy, the provider must identify risk factors by obtaining a thorough medical, psychological and substance abuse history. Obtaining written informed consent and treatment agreement prior to beginning opioid therapy is also recommended. The model policy states a treatment plan should have obtainable goals and an opioid trial should be implemented at the initiation of therapy. The “Five As” of chronic pain management should be monitored throughout treatment (FSMB, 2013). The Five As include: reduction in pain (Analgesia), improvement in level of function (Activity), presence of significant adverse effects (Adverse effects), evidence of aberrant substance-related behaviors (Aberrant behaviors), and mood of patient (Affect). During management of treatment, consistent monitoring should be maintained including assessment of patient and utilizing tools such as the PDMP and the “Five As” (FSMB, 2013). Lastly, providers should refer patients to a pain, psychiatry, addiction or mental health specialist as appropriate.

The American Association of Nurse Practitioners does not provide guidelines on the use of opioids to manage patients with chronic pain, rather they recommend the American Academy of Pain Medicine (AAPM) (2013) guidelines (American Association of Nurse Practitioners, 2015). The AAPM (2013) statement on the use of opioids for the treatment of chronic pain endorses interventions to decrease the risk of drug abuse including urine or blood drug screening, frequent follow up, pill counting as well as periodic review of the state’s PDMP where available. Obtaining an initial pain history from the patient as well as baseline drug screening may be appropriate according to AAPM guidelines. Random drug screening and pill counts help

monitor compliance of treatment as well as consistent follow up visits. Lastly, the AAPM recommends consultation with a pain specialist when needed, especially if the patient has a history of addiction or psychiatric disorders.

The American Society of Interventional Pain Physicians (ASIPP) (2015) specializes in pain intervention and provides evidence-based practice guidelines. Consistent with FSMB (2013) and AAMP (2013) guidelines, ASIPP (2012) guidelines recommend identifying appropriate physical and psychological diagnosis if available prior to initiating therapy. The ASIPP guidelines are lengthier, and include recommendations that are not in FSMB (2013) or AAPM (2013) guidelines. The additional ASIPP (2012) recommendations include advising caution in ordering imaging or other evaluations as to minimize the potential for increased fear, activity restriction or requests for more opioids from the patient. Patients should be divided into one of three categories, low, medium or high potential for abuse based on criteria in the guidelines. Depending on the patient's risk category, the opioid dose as well as use and frequency of urine drug screening and frequency of PDMP access is determined based on an algorithm developed by ASIPP (2012).

Guidelines from the three organizations discussed above all contain several consistent recommendations for initiating and monitoring the treatment of chronic pain with opioids in primary care (see Table 1). Thorough evaluation and assessment of patients at initiation of therapy including past medical and psychiatric history as well as history of substance abuse is advised by all three organizations. Each guideline strongly emphasizes the need to establish and identify current and past risks for complications of initiating opioid therapy. Once the history is obtained, all three organizations advise providers to assess for contraindications, establish treatment goals and initiate an opioid trial once opioid therapy has been decided. Once opioid

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therapy has been started, all three guidelines advise frequent follow up and monitoring by using various tools including urine drug screening, pill counts, the FSBM (2013) “Five A’s” and/or accessing the state’s PDMP. In order to manage opioid therapy safely, all three organizations recommend thorough documentation throughout treatment. Lastly, consultation to specialists when needed are encouraged by all three organizations.

Table 1

*Comparison of Opioid Prescribing Guidelines*

Guideline	American Academy of Pain Medicine <sup>1</sup>	Federation of State Medical Boards <sup>2</sup>	American Society of Interventional Pain Physicians <sup>3</sup>
Health history	Strongly recommends*	Strongly recommends	Strongly recommends
Mental health history	Strongly recommends	Strongly recommends	Strongly recommends
Substance abuse history	Strongly recommends	Strongly recommends	Strongly recommends
Opioid Screening Tools	No specific recommendation	Recommends**	Recommends
Assess for contraindications or risks prior to initiation	Strongly recommends	Strongly recommends	Strongly recommends
Treatment goals	Strongly recommends	Strongly recommends	Strongly recommends
Treatment contract	No specific recommendation	Strongly recommends	Strongly recommends
Opioid trial	Strongly recommends	Strongly recommends	Recommends
Frequent review of progress and assessment for abuse including accessing state’s Prescription Drug Monitoring Program or “Five A’s”	Strongly recommends; access PDMP	Strongly recommends; access PDMP and use “Five A’s”	Strongly recommends; access PDMP
Urine Drug Test	Recommends	Recommends	Strongly recommends
Pill count	Recommends	Recommends	No specific recommendation
Initiate bowel regimen when indicated	No specific recommendation	No specific recommendation	Strongly recommends
Consultation when necessary	Strongly recommends	Strongly recommends	Strongly recommends
Monitoring for need/ability to discontinue opioid therapy	No specific recommendation	Strongly recommends	No specific recommendation
Thorough documentation	Strongly recommends	Strongly recommends	Strongly recommends

\*Recommendations are identified as strongly recommended if the guideline is listed as something that must or should be done.

\*\*Recommendations are identified as recommended if the guideline is listed as something that may be useful/helpful.

1. Adapted from American Academy of Pain Medicine, 2013
2. Adapted from Federation of State Medical Boards, 2013
3. Adapted from American Society of Interventional Pain Physicians, 2012

### **Research Questions**

1. To what extent are primary care NP practices consistent with current FSMB (2013) guidelines when managing chronic non-cancer pain with opioid therapy?
2. What are the perceived barriers to primary care NP guideline use when managing chronic pain with opioids?

### **Methods**

This project used a cross-sectional, descriptive design. The principal investigator recruited a convenience sample of NPs by downloading the list of current Alaska NP license holders as well as their mailing address from the ABON public use website.

### **Measure**

A paper survey measured Alaska NP practices and barriers regarding the use of current guidelines on the treatment of chronic pain with opioids (Appendix B). The researcher-developed survey contained 22 items (20 close-ended, five-point Likert scale items and two open-ended items). Guidelines from the FSMB (2013) were used in the survey as these are recommended as best practice by the ABON (2008). NPs were asked the frequency of use of key practices recommended by the FSMB (2013). The guidelines were divided into two subcategories: initiation of opioid therapy and management of opioid therapy. Questions regarding use when prescribing opioids for chronic pain used a five-point Likert scale consisting of five response choices: very frequently, frequently, occasionally, rarely and very rarely. The question regarding barriers to guideline use allowed the respondent to select all that apply as well as space to add additional barriers not mentioned in survey. The open-ended question asked for further thoughts regarding opioid prescribing practices. The survey also included five close-

ended questions to collect demographic data on respondents. Demographic questions were used to exclude several subgroups from the survey. Respondents were asked to indicate their- age, years practicing as a licensed NP, zip code, practice setting (on or off road system) and specialty. To establish readability and face validity, the survey was pilot-tested with a group of 10 NPs and NP student peers in Alaska after this project was approved.

### **Inclusion and Exclusion Criteria**

The sample included NPs currently licensed to practice in Alaska with an Alaska mailing address, as of June 9, 2015, 615 NPs met these criteria. NPs who worked in a pain management practice or hospice/palliative care were excluded as this survey was aimed at primary care practitioner management of chronic pain. NPs who work in oncology were also excluded as the guidelines apply to non-malignant chronic pain management.

### **Data Analysis**

The data was analyzed using the Statistical Package for the Social Sciences Version 23 (SPSS, 23). Survey responses were summarized using descriptive statistics. The majority of survey responses were ordinal level of measurement, with the exception of the demographic and barrier survey items which were nominal. The open-ended question were analyzed to identify any recurring themes within the responses by using inductive content analysis as described by Elo and Kyngas (2007). Themes were identified by open coding, creating categories and abstraction.

### **Discussion of Rights of Human Subjects and the Consent/Review Process**

The University of Alaska's Institutional Review Board reviewed and approved this project under exempt status. Respondent consent was implied by the returning of the survey. Instructions and

an explanation of the project were included in a cover page with the survey, as well as a two-week return request (Appendix A). There was no cost or risk to respondents. There was no identifying information collected with the survey.

## Results

### Respondents

There were 179 surveys returned, 169 meeting the inclusion criteria, yielding a response rate of 27.5%. Of those who responded, 22.9% ( $n=41$ ) were 40 years or younger, 48% ( $n=86$ ) were between the ages of 41 and 60, 26.8% ( $n=48$ ) were 61 years old or greater and four respondents did not list age. When asked about years of practice, 23.7% ( $n=42$ ) practiced five years or less, 34.8% ( $n=62$ ) practiced between five and half years and fifteen, 26.3% ( $n=47$ ) practiced 16 to 25 years and 15.4% ( $n=27$ ) practiced 26 years or greater. The average years of practice of respondents was 14.5 years.

When asked about specialty area of practice, 5.5% ( $n=10$ ) reported pain specialty, oncology, hospice or palliative care, therefore excluding their responses regarding guideline adherence. Primary adult care was the largest group represented with 25.5% ( $n=45$ ), followed by family practice, 16.2% ( $n=29$ ). Mental health represented 9.5% ( $n=17$ ) of respondents followed by women's health (including midwifery), 13.97% ( $n=25$ ). Emergency/urgent care represented 4.5% ( $n=8$ ) of responses and pediatrics represented 4.47% ( $n=10$ ). The remaining 19.5% ( $n=35$ ) of respondents listed areas of practice which were represented by two or less respondents each and were therefore combined into one category (Figure 1).

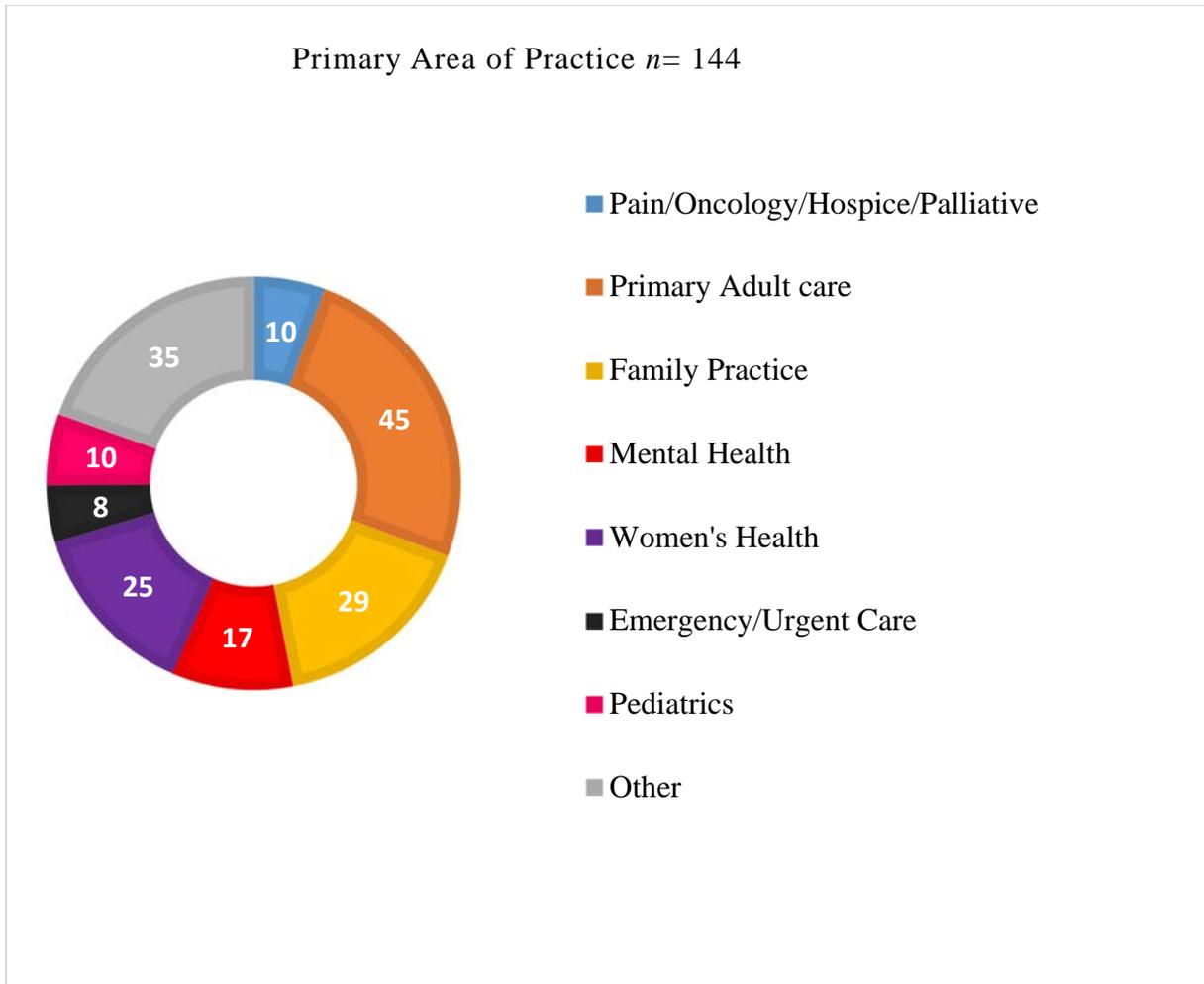


Figure 1. Primary area of practice of respondents

In regards to location, 84.4% ( $n=151$ ) of respondents said they were on the road system, 12.3% ( $n=22$ ) were off the road system, 2.2% ( $n=4$ ) responded both on and off the road system and two respondents did not answer (Figure 2). The most common location was the Anchorage bowl area, representing 56.98% ( $n=102$ ), which also included Eagle River, Chugiak and Girdwood. Matanuska- Susitna valley and southeast Alaska each represented 11.17% ( $n=20$ ) of respondent answers. There were 12 (6.7%) respondents who listed the Fairbanks area as their zip code. The Kenai Peninsula was chosen by 3.91% ( $n=7$ ) of respondents and the remaining Southwest region was chosen by 5.03% ( $n=9$ ) of respondents. There were two (1.12%)

responses from South-central Alaska that were not in the Anchorage bowl or Matanuska-Susitna Valley and there were two (1.12%) responses from Washington. Three respondents did not list zip code (Figure 3).

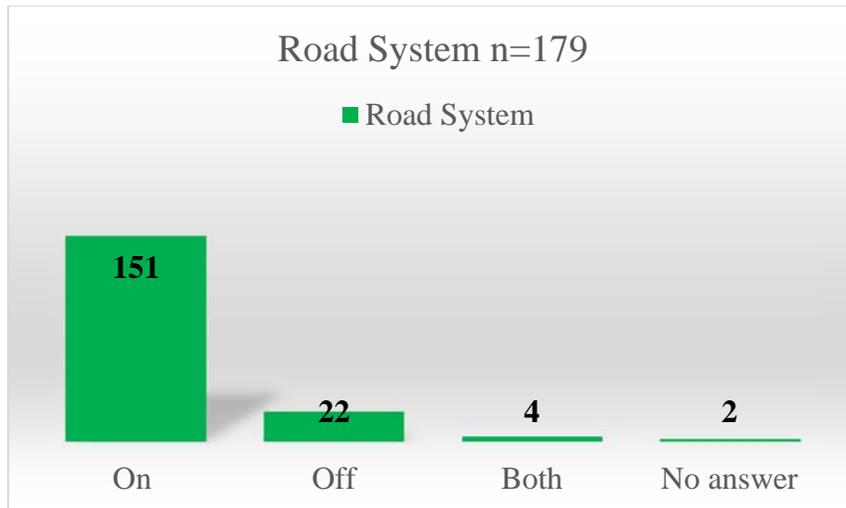


Figure 2. Location of respondents in regards to road system

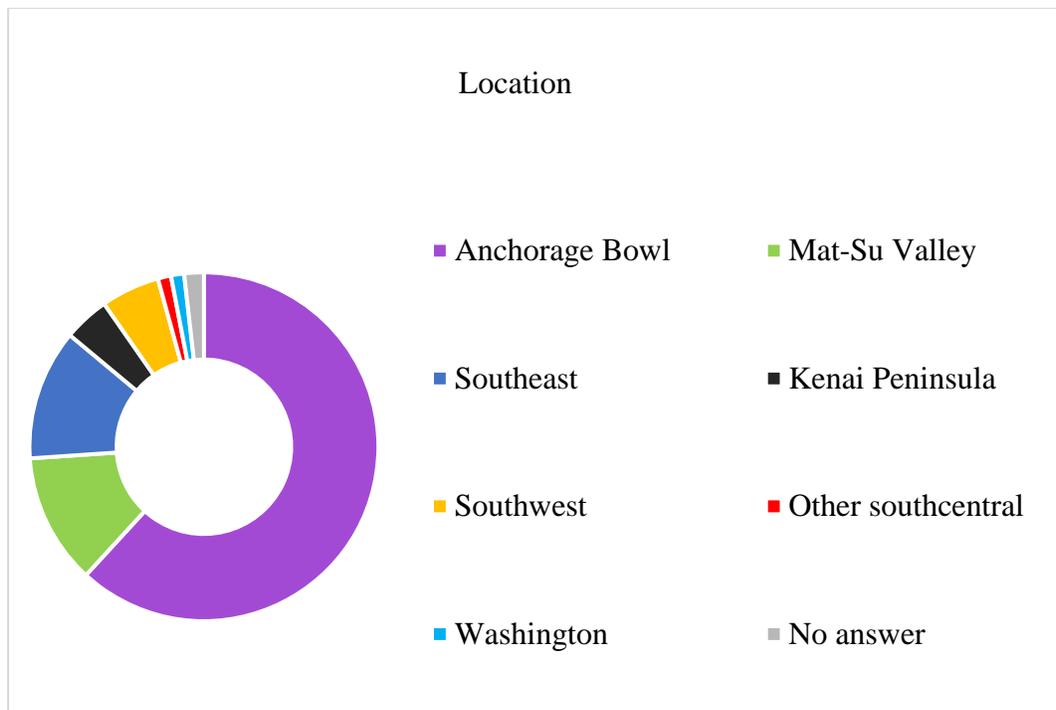


Figure 3. Location of respondents

## **Barriers**

All respondents, whether or not they managed chronic pain with opioids, were asked to identify their perceived barriers to guideline use. Of those who responded, almost half (41.9%,  $n=75$ ) listed being unfamiliar with current guidelines as a barrier. The following most commonly listed barriers were feeling unqualified to address pain management (33.5%,  $n=60$ ), unfamiliar with the Alaska Prescription Drug Monitoring Program (PDMP) (32.4%,  $n=58$ ), and unfamiliar with how to access/use the PDMP (30.7%,  $n=55$ ). In addition to barriers regarding knowledge of guidelines and PDMP, 29.6% ( $n=53$ ) of respondents listed “lack of confidence in addressing potential prescription drug abuse” as a barrier to guideline use. Respondents selected “being unsure when to refer to specialist” 16.2% ( $n=29$ ) of the time.

In regards to resource barriers, 27.9% ( $n=50$ ) listed not having enough time during visit as a barrier, 19% ( $n=34$ ) listed lack of patient access to a specialist due to location as a barrier and 14% ( $n=25$ ) of respondents listed inadequate patient insurance as a barrier to guidelines use. Fear of offending patient was selected by 8.9% ( $n=25$ ) of respondents and fear of patient going to a different provider was selected by 3.4% ( $n=6$ ) of respondents.

## **Guideline Use**

Of the 169 respondents who met inclusion criteria, 32.5% ( $n=55$ ) stated they prescribe opioids to manage chronic pain while two respondents did not answer and one answered both yes and no, but proceeded to provide answers for guideline adherence in practice. The Likert scale questions were divided into two categories: initiating opioid therapy and managing opioid therapy. In regards to initiating opioid therapy, the majority of respondents obtained a thorough history most of the time including: obtaining a thorough medical history ( $n=52$ ,  $M=4.96$ ),

obtaining a thorough mental health history ( $n=52, M=4.63$ ), and obtaining a substance abuse history ( $n=52, M=4.73$ ). Respondents also assessed for contraindications and risks of initiating therapy ( $n=52, M=4.87$ ) and initiate an opioid trial with specific goals ( $n=50, M=4.22$ ) most of the time. Respondents consulted with specialist when a risk for addiction had been identified ( $n=49, M=3.59$ ) and obtained a written treatment agreement ( $n=49, M=3.71$ ) less frequently but still above the median score. Respondents were least likely to have obtained written informed consent ( $n=48, M=3.52$ ) and reviewed patient history using the Alaska PDMP ( $n=48, M=3.54$ ) consistently (Figure 4).

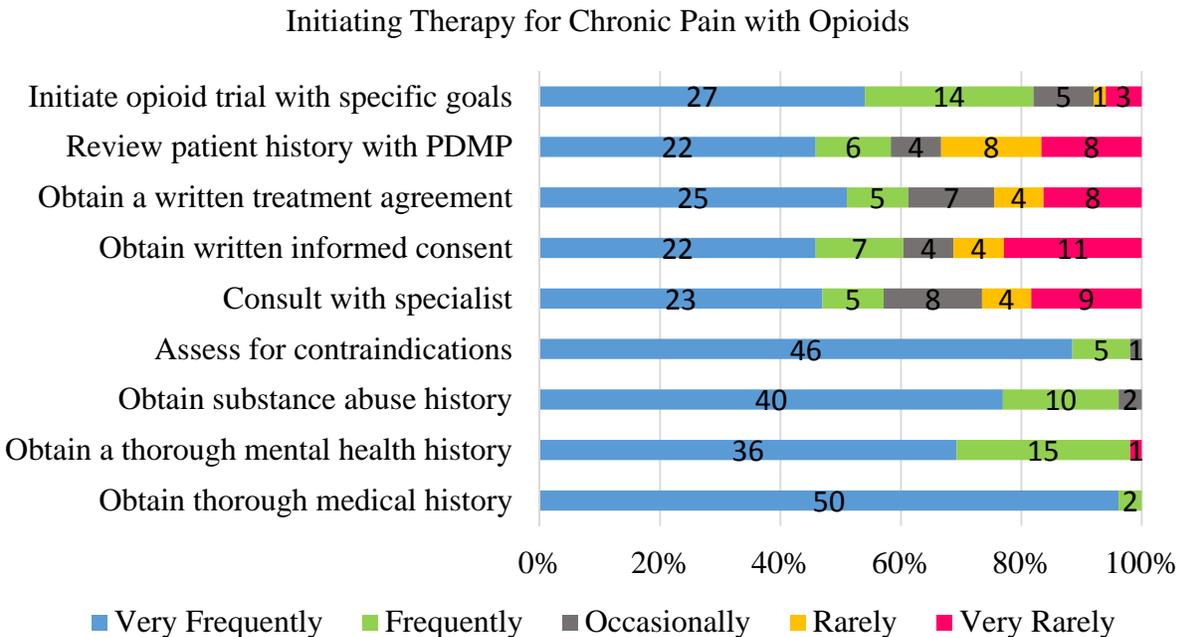


Figure 4. NP guideline adherence when initiating opioids for chronic pain

When managing chronic pain with opioid therapy, respondents were most likely to have monitored for the need or ability to discontinue therapy ( $n=57, M=4.25$ ), followed by referring for consultation from a pain, psychiatric, addiction or other specialist ( $n=57, M=3.77$ ). Although still scoring above the median, respondents were less likely to have assessed results of chronic

opioid therapy using the “5 A’s” ( $n=57, M=3.30$ ). The guideline that was least likely to be used when managing chronic pain with opioids is to have obtained the patient’s prescription history from the Alaska PDMP ( $n=58, M=3.16$ ) (Figure 5).

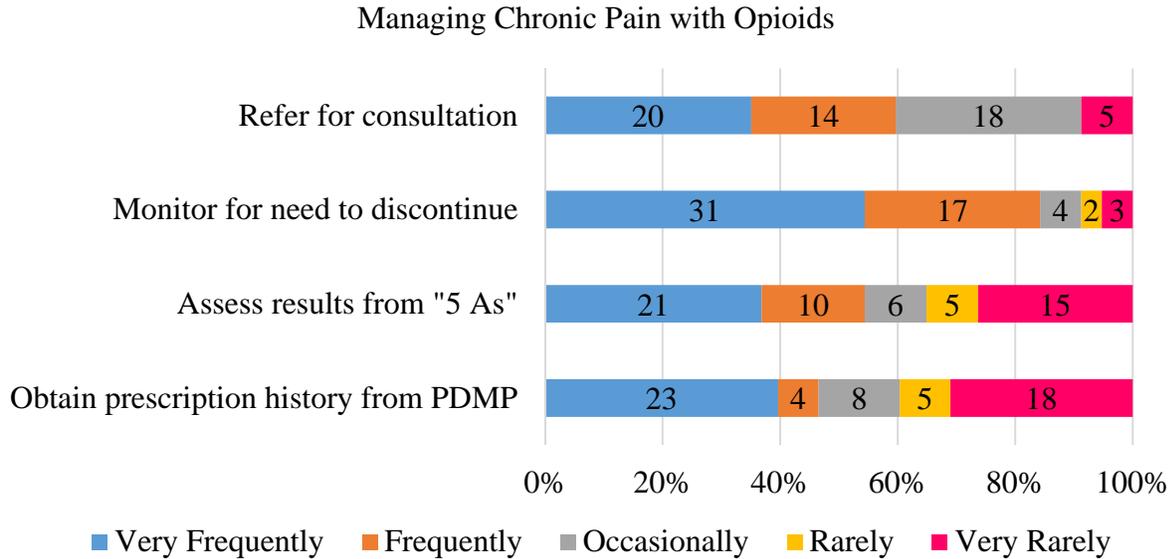


Figure 5. NP guideline adherence when managing chronic pain with opioids

Respondents were asked to select ‘no’, ‘only with some patients’ or ‘yes’ if they periodically performed urine or blood testing as well as periodically counted the patient’s pills when managing chronic pain with opioids. Both questions yielded responses below the median, with periodic pill counting ( $n=58, M=1.11$ ) occurring less frequently than periodically performing urine or blood testing ( $n=58, M=1.47$ ) (Figure 6).

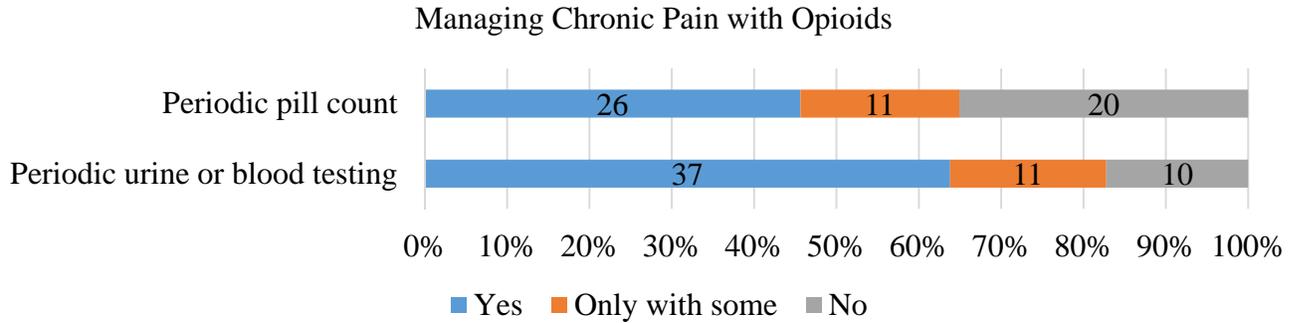


Figure 6. NP guideline adherence of periodic testing when managing chronic pain with opioids

Respondents were also asked to select ‘no’ or ‘yes’ in regards to providing documentation recommended in the guidelines when managing chronic pain with opioids. Respondents were most likely to document medical history ( $n=58, M=.98$ ), exam ( $n=58, M=.93$ ), and all prescription orders ( $n=58, M=.93$ ). Most respondents were also likely to document treatment descriptions ( $n=58, M=.91$ ), instructions given to patients ( $n=58, M=.88$ ), and lab history ( $n=58, M=.83$ ). Respondents were less likely to document notes on evaluations/consultations with specialists ( $n=58, M=.81$ ) and written instructions for use ( $n=58, M=.72$ ), although responses were still above the median. The components of documentation respondents were least likely to include were authorization for release of information to other treatment providers ( $n=58, M=.52$ ) and risk assessment results ( $n=58, M=.45$ ).

### Open-ended Responses

Respondents, regardless of whether or not they managed chronic pain with opioids, were to list additional barriers to guideline use and to provide any additional thoughts they may have regarding this topic. Due to the vast overlap in responses, the two questions were combined to provide a succinct collection of themes which emerged during analysis.

**Clinical setting.** The most common theme ( $n=21$ ) was that managing chronic pain with opioids was not within the scope of practice of the respondent's setting, for example, their clinical setting had a policy to not manage chronic pain or they did not treat patients with chronic pain in their practice or specialty. Typical responses included "I never prescribe pain meds in my practice" and "clinic policy is to use opioids for acute pain only".

**Pain specialist.** Barriers regarding pain specialists was multifactorial according to several respondents ( $n=12$ ). Among the barriers listed were cost of specialist and inadequate access to specialists with one respondent stating "lack of pain specialists who will take Medicare/Medicaid hinders my referral abilities". Others claim specialists will not take patient, stating "[the patient has] poor compliance with 'pain specialists' and end up getting 'fired' by the pain specialist causing a dilemma of needing pain management but no providers willing to treat". Additionally, respondents mentioned patient aversion to being seen by pain specialist, stating "patient doesn't want pain specialist- afraid of going to office especially if they are not 'one of them'". Respondents stated they try to get patients to see specialists when available, especially if they are at a high risk of addiction. One respondent stated they only manage chronic pain if the patient has been evaluated by a pain specialist and "are well known and current long term patients in my practice", indicating a need for collaborate effort in regards to chronic pain management.

**Uncomfortable/challenge to manage chronic pain.** Of the listed barriers and additional thoughts, nine respondents claimed they felt uncomfortable or disliked managing chronic pain with opioids. Responses included "challenging! Would prefer not to have to do", "time consuming" and "appropriate management is difficult".

**Aberrant patient behavior/fear of litigation.** Identified as a barrier by eight respondents was the concern of abuse or aberrant behavior by the patient, as well as the general overuse of opioid pain medications. Respondents listed “drug-seeking patients” and “concerns that opioids may be sold for higher street value (instead of being taken as intended)” as barrier. One respondent stated “far too many end up on narcotics, they lie, they sell their drugs and we are supposed to buy into it. There is way too much abuse and the medical profession teaches to buy into it”. Others have chosen not to manage chronic pain due to time constraints related to drug-seeking. In regards to litigation, one respondent wrote “fear of having license targeted and taken away due to being accused of running a pill mill. Litigation of patient, family, overdose, suicide using opioids” in the barriers section of the survey.

**Complication/comorbidities.** Seven respondents mentioned comorbid conditions which make managing chronic pain more complex in regards to properly obtaining a history from patient or the difficulty in coordinating care. Examples of comorbidities respondents listed as complicating care include when chronic pain patients become pregnant, stating the primary provider of the pain medications “do not want involvement during pregnancy which puts our patients and providers in a bad spot” or they only manage during illness specific to their specialty such as Lyme disease treatment. Another example stated by a respondent was the increased tolerance to pain medications a patient may have and how this complicates care if the patient has surgery or suffers a trauma.

**Refer to others.** In addition to not managing due to practice policy or setting, seven respondents stated they refer to other providers when presented with a patient who has chronic pain. Reasons listed were their current practice setting was not appropriate to manage chronic pain or due to a lack of knowledge or experience. One respondent whose primary area of

practice is emergency/urgent care stated “[I] defer to PCP [primary care provider] since pain contract needs to be established so PCP can dispense no more than 30 days of pain meds, urine test sometimes used to ensure no other drugs used” while one women’s health care provided said “[I] decided not to get my DEA number years ago. Refer to another HCP [healthcare provider] if this an issue”. Referring to medical doctor was listed by two respondents stating “I only manage a very small number of chronic pain patients, after three months of pain I transfer care to MD in our office who routinely manages chronic pain.” One respondent listed lack of knowledge as a barrier as a reason to refer, stating:

*I frequently don't feel comfortable with the pathophysiology versus subjective experience i.e. when patient complains of increased pain and requests more opioids-is it a complaint that needs further eval[ulation] (ultrasound, CT, etc.) vs a psychogenic reaction and therefore I refer them to MD.*

**Insurance.** Another common theme mentioned ( $n=6$ ) was insurance as a barrier to manage chronic pain with opioids. Respondents claimed insurance companies did not cover medications or that referrals were denied by Medicaid. Others stated there was a lack of insurance for alternative therapies such as massage or acupuncture. One respondent stated “we do always try to get these patients to specialists, but most recently all of these referrals have been denies by Medicaid”.

**Providing coverage for previous provider.** Another theme that emerged was providers continuing to manage chronic pain for a patient previously initiated by another provider ( $n=5$ ). Of those respondents who stated they continue existing treatment plans, two claimed they did not like managing chronic pain, but “people who are on don’t want to stop and as their provider I

continue old prescription even if I don't like it- I rarely initiate". A couple of respondents stated they work as locum tenants and continue treatment plans initiated by others.

**Alternative therapies.** Offering alternative or complementary modalities for pain management was listed by five respondents. Physical therapy, steam, topicals, massage, counseling and osteopathic manipulation were among the alternative therapies mentioned. One respondent states they rarely use opioid therapy for chronic pain and it is only used once all other avenues have failed while another states "opioids are not the drugs of choice for chronic pain (or shouldn't be in my and many others opinion)".

**Training and education.** There was a theme of education and a need for additional certification mentioned by five respondents. Respondents claimed if providers are prescribing opioids, they should follow current guidelines, need certifications and another mentioned providers attending a CME [continuing medication education] on narcotic prescription, stating "it puts the fear of God in you if you do not document correctly and what can happen if DEA comes knocking." Others mentioned interest in using the PDMP and learning how to manage chronic pain.

## Discussion

The average years of practice of respondents was 14.5 years, which is one year higher than a 2015 study of 100 Alaska NPs which listed 13.5 years as the average years of practice (Alaska Nurse Practitioner Association, 2015). When comparing regional location of respondents to the total number of surveys mailed ( $n=615$ ), the greatest area of variance was between the Kenai Peninsula region representing 6.7% ( $n=7$ ) of respondents but only 5.52% ( $n=48$ ) of mailed

surveys. Based on the similar average years of practice as well as similar distribution regionally, the sample is fairly representative of the Alaska NP population.

The majority of respondents who manage chronic pain are following guidelines most of the time when initiating therapy with all but three of the nine guidelines being used very frequently by at least 50% of respondents. The lack of adherence to guidelines involving the state's PDMP may be due to the fact that the program is still very new to the state of Alaska, as the program was launched in 2013. Regarding consultation with specialists, providers may not know when to consult or refer due to a knowledge barrier of guidelines for chronic opioid use. Fewer respondents are following guidelines consistently when managing therapy with only one of the four guidelines being followed 'very frequently' by at least 50% of respondents. The decrease in guideline adherence when managing may be attributed to providers managing chronic pain during acute or limited settings or respondents are covering for other providers. Managing chronic pain requires the use of tools such as the PDMP and "Five A's" so if providers lack the knowledge of how to use these tools, this may attribute to the decrease in guideline adherence. Respondents perform periodic urine or blood drug testing more often than periodic pill counting, with pill counting occurring less than half of the time. These results are similar to those from Sekhon et al (2013) who found that written agreements and at least one drug screening were done only half of the time. The only documentation component of the recommended guidelines not followed by at least 50% of respondents was documenting risk assessment scores, which illustrates that providers are documenting chronic pain management most of the time.

The most common barriers listed by respondents can be divided into two categories: knowledge deficit and resource deficit. Knowledge deficit barriers included being unfamiliar

with current guidelines or how to use or access the PDMP. This is consistent with Sekhon et al (2013) who concluded that further education is needed for primary care providers in order to increase guideline use. These findings are also consistent with the Franklin et al (2013) study that identified a lack of knowledge regarding available guidelines. Sekhon et al discussed the lack of proper drug screen utilization also potentially being a knowledge barrier. Additional common knowledge deficit barriers identified by respondents were feeling unqualified to address pain management or a lack of confidence to address abuse. These results are consistent with Dowler (2013) who found that providers would like to have resources for substance abuse treatment as well as recommendations once substance abuse has been identified when asked to make recommendations for the Oregon PDMP. Additionally, Sekhon et al found that documented intervention once a patient failed a drug screen was only done 28% of the time, and this may be attributed to the lack of confidence to address abuse.

In regards to resource barriers listed by respondents, lack of time, no patient access to specialist due to location or inadequate patient insurance were the most commonly listed resource barriers. Limited access to specialists was also listed as a barrier to guideline adherence by Franklin et al (2013) in their study of Washington providers.

The majority of respondents who manage chronic pain with opioids are following recommended guidelines most of the time, with the greatest adherence at the initiation of therapy. There is a decrease in adherence when managing chronic pain with opioids which may be due to the knowledge and resource barriers listed by respondents. Among the most common resource barriers listed were pain specialist access, insurance barriers and lack of time. Knowledge barriers included lack of knowledge regarding PDMP use, lack of guideline knowledge and lack of confidence managing chronic pain with opioids.

### **Implications**

The results of the survey provided information on current practices regarding pain management and to what extent those practices are consistent with current guidelines. Knowledge barriers were one of the most common themes identified, therefore more opportunities for Alaska NPs to learn from educational offerings should be made available to Alaska NPs to increase guideline use when managing chronic pain with opioids. Alaska's PDMP should also provide resources and education regarding use and tools to increase awareness and accessibility of this asset. Funding should be made available for providers to gain access to resources for patients, including continued state coverage of the PDMP and coverage of patient services that may not be reimbursed by insurance.

### **Dissemination**

A poster presentation of the results was presented at the Advanced Practice Registered Nurse Alliance conference focusing on opioid therapy on January 9, 2016 which led to discussion regarding awareness of guidelines with several attendees. I will further disseminate my project findings by submitting to present my poster at the Alaska NP Conference in September of 2016. At the conference I will have flyers on hand which will have resources listed regarding online educational opportunities that will be available for attendees (Appendix C). These resources are aimed to increase knowledge and confidence in providers when managing chronic pain with opioids. This flyer will also be sent to the Alaska Nurse Practitioner Association to be posted to their website. A copy of this project will be sent to the Alaska PDMP for review and consideration.

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**Appendix A**

**Model Policy for Initiation Therapy**

Table A-1

*FSMB (2013) Model Policy on the Use of Opioid Analgesics in the Treatment of Chronic Pain*

<p>Complete assessment of patient history</p>	<ul style="list-style-type: none"> <li>• For every patient the initial work-up should include a systems review and relevant physical examination, as well as laboratory investigations as indicated.</li> <li>• Social and vocational assessment is useful in identifying supports and obstacles to treatment and rehabilitation.</li> <li>• Assessment of the patient’s personal and family history of alcohol or drug abuse and relative risk for medication misuse or abuse also should be part of the initial evaluation.</li> <li>• All patients should be screened for depression and other mental health disorders, as part of risk evaluation.</li> <li>• Use of a validated screen tool (such as the Screener and Opioid Assessment for Patients with Pain or the Opioid Risk Tool), or other validated screening tools, can save time in collecting and evaluating the information and determining the patient’s level of risk.</li> </ul>
<p>Patients with substance abuse disorders</p>	<ul style="list-style-type: none"> <li>• Patients who have a history of substance use disorder (including alcohol) are at elevated risk for failure of opioid analgesic therapy to achieve the goals of improved comfort and function, and also are at high risk for experience harm from therapy, since exposure to addictive substances often is a powerful trigger of relapse. Therefore, treatment of a patient who has a history of substance use disorder should, if possible, involve consultation with an addiction specialist before opioid therapy is initiated (and follow-up as needed).</li> <li>• Patients who have an active substance use disorder should not receive opioid therapy until they are established in a treatment/recovery program or alternatives are established such as co-management with an addiction professional.</li> </ul>
<p>Confirm information</p>	<ul style="list-style-type: none"> <li>• Information provided by the patient is a necessary but insufficient part of the evaluation process. Reports of previous evaluations and treatments should be confirmed by obtaining records from other providers, if possible.</li> <li>• If possible, the patient evaluation should include information from family members and/or significant others.</li> <li>• Where available, the state prescription drug monitoring program (PDMP) should be consulted to determine whether the patient is receiving prescriptions from any other physicians, and the results obtained from the PDMP should be documented in the patient record.</li> </ul>
	<ul style="list-style-type: none"> <li>• The goals of pain treatment include reasonably attainable improvement in pain and function, improvement in pain-associated symptoms such</li> </ul>

	<p>as sleep disturbances, depression, and anxiety; and avoidance of unnecessary or excessive use of medications.</p> <ul style="list-style-type: none"> <li>• The treatment plan and goals should be established as early as possible in the treatment process and revisited regularly, so as to provide clear-cut, individualized objectives to guide the choice of therapies. The treatment plan should contain information supporting the selection of therapies, both pharmacologic (including medications other than opioids) and nonpharmacologic. It also should specify the objectives that will be used to evaluate treatment progress, such as relief of pain and improved physical and psychosocial function.</li> <li>• The plan should document any further diagnostic evaluations, consultations or referrals, or additional therapies that have been considered.</li> </ul>
Written informed consent	<ul style="list-style-type: none"> <li>• Informed consent documents typically address: <ul style="list-style-type: none"> <li>○ The potential risks and anticipated benefits of chronic opioid therapy</li> <li>○ Potential side effects (both short- and long-term) of the medications, such as constipation and cognitive impairment</li> <li>○ The likelihood that tolerance to and physical dependence on the medication will develop</li> <li>○ The risk of drug interactions and over-sedation</li> <li>○ The risk of impaired motor skills (affecting driving and other tasks)</li> <li>○ The risk of opioid misuse, dependence, addiction, and overdose</li> <li>○ The limited evidence as to the benefit of long-term opioid therapy</li> <li>○ The physician’s prescribing policies and expectations, including the number and frequency of prescription refills, as well as the physician’s policies on early refills and replacement of lost or stolen medications</li> <li>○ Specific reasons for which drug therapy may be changed or discontinued (including violation of the policies and agreements spelled out in the treatment agreement)</li> </ul> </li> </ul>
Written treatment agreement	<ul style="list-style-type: none"> <li>• Treatment agreements outline the joint responsibilities of physician and patient and are indicated for opioid or other abusable medications. They typically discuss: <ul style="list-style-type: none"> <li>○ The goals of treatment, in terms of pain management, restoration of function, and safety</li> <li>○ The patient’s responsibility for safe medication use (e.g., by not using more medication than prescribed or using the opioid in combination with alcohol or other substances; storing medications in secure location; and safe disposal of any unused medication)</li> <li>○ The patient’s responsibility to obtain his or her prescribed opioids from only one physician or practice</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>○ The patient’s agreement to period drug testing (as of blood, urine, hair, or saliva)</li> <li>○ The physician’s responsibility to be available or to have a covering physician available to care for unforeseen problems and to prescribe scheduled refills.</li> </ul>
Opioid trial	<ul style="list-style-type: none"> <li>● Generally, safer alternative treatments should be considered before initiation opioid therapy for chronic, non-malignant pain. Opioid therapy should be presented to the patient as a therapeutic trial or test for a defined period of time (usually no more than 90 days) and with specified evaluation points. The physician should explain the progress will be carefully monitored for both benefit and harm in terms of events or risk to safety.</li> <li>● When initiated opioid therapy, the lowest dose possible should be given to an opioid naïve patient and titrate to affect. A decision to continue opioid therapy beyond the trial period should reflect a careful evaluation of benefit versus adverse events and/or potential risks.</li> </ul>
Ongoing monitoring	<ul style="list-style-type: none"> <li>● The physician should regularly review the patient’s progress, including any new information about the etiology of the pain or the patient’s over health and level of function.</li> <li>● When possible, collateral information about the patient’s response to opioid therapy should be obtained from family members or other close contacts, and the state PDMP.</li> <li>● The patient should be seen more frequently while the treatment plan is being initiated and the opioid dose adjusted.</li> <li>● As the patient is stabilized in the treatment regimen, follow-up visits may be schedule less frequently.</li> <li>● At each visit, the results of chronic opioid therapy should be monitored by assessing what have been called the “5 As” of chronic pain management; these involve a determination of whether the patient is experiencing a reduction in pain (Analgesia), has demonstrated an improvement in level of function (Activity), whether there are significant Adverse effects, whether there is evidence of Aberrant substance-related behaviors, and mood of the individual (Affect)</li> <li>● Validated brief assessment tools that measure pain and function, such as the three question “Pain, Enjoyment and General Activity” (PEG) scale or other validated assessment tools, may be helpful and time effective</li> </ul>
Adapting treatment plan	<ul style="list-style-type: none"> <li>● Continuation, modification or termination of opioid therapy for pain should be contingent on the physician’s evaluation of 1) evidence of the patient’s progress toward treatment objectives and 2) the absence of substantial risks of adverse events such as overdose or diversion.</li> </ul>
Periodic drug testing	<ul style="list-style-type: none"> <li>● Periodic drug testing may be useful in monitoring adherence to the treatment plan, as well as in detecting the use of non-prescribed drugs. Drug testing is an important monitoring tool because self-reports of medication use is not always reliable and behavioral observations may detect some problems but not others</li> </ul>

	<ul style="list-style-type: none"> <li>• Patients being treated for addiction should be tested as frequently as necessary to ensure therapeutic adherence, but for patients being treated for pain, clinical judgement trumps recommendations for frequency of testing.</li> <li>• Urine may be the preferred biologic specimen for testing because of its ease of collection and storage and the cost-effectiveness of such testing.</li> <li>• Physicians need to be aware of the limitations of available tests (such as their limited sensitivity for many opioids) and take care to order tests appropriately. For example, when a drug test is ordered, it is important to specify that it include the opioid being prescribed. Because of the complexities involved in interpreting drug test results, it is advisable to confirm significant or unexpected results with the laboratory toxicologist or a clinical pathologist.</li> <li>• Test results that suggest opioid misuse should be discussed with the patient. It is helpful to approach such a discussion in a positive, supportive fashion, so as to strengthen the physician-patient relationship and encourage healthy behaviors (as well as behavioral change where that is needed). Both the test results and subsequently discussion with the patient should be documented in the medical record.</li> </ul>
Pill counting	<ul style="list-style-type: none"> <li>• Periodic pill counting is also a useful strategy to confirm medication adherence and to minimize diversion (e.g., selling sharing, or giving away medications).</li> </ul>
PDMP	<ul style="list-style-type: none"> <li>• As noted earlier and where available, consulting the state’s PDMP before prescribing opioids for pain and during ongoing use is highly recommended. A PDMP can be useful in monitoring compliance with the treatment agreement as well as identifying individuals obtaining controlled substances from multiple prescribers.</li> </ul>
Consultation and referral	<ul style="list-style-type: none"> <li>• The treating physician should seek a consultation with, or refer the patient to, a pain, psychiatry, addiction or mental health specialist as needed.</li> <li>• Physicians who prescribe chronic opioid therapy should be familiar with treatment options for opioid addiction (including those available in licensed opioid treatment programs) and those offered by an appropriately credentialed and experienced physician through office-based opioid treatment, so as to make appropriate referrals when needed</li> </ul>
Discontinuing opioid therapy	<ul style="list-style-type: none"> <li>• Reasons for discontinuing opioid therapy include resolution of the underlying painful condition, emergence of intolerable side effects, inadequate analgesic effect, failure to improve the patient’s quality of life despite reasonable titration, deteriorating function, or significant aberrant medication use</li> <li>• If opioid therapy is discontinued, the patient who has become physically dependent should be provided with a safely structured tapering regimen. Withdrawal can be managed either by the</li> </ul>

	<p>prescribing physician or by referring the patient to an addiction specialist.</p> <ul style="list-style-type: none"> <li>• The termination of opioid therapy should not mark the end of treatment which should continue with other modalities, either through direct care or referral to other health care specialists as appropriate</li> </ul>
<p>Medical records</p>	<ul style="list-style-type: none"> <li>• Every physician who treats patients for chronic pain must maintain accurate and complete medical records. Information that should appear in the medical record includes the following:             <ul style="list-style-type: none"> <li>○ Copies of the signed informed consent and treatment agreement</li> <li>○ The patient’s medical history</li> <li>○ Results of the physical examination and all laboratory tests</li> <li>○ Results of the risk assessment, including results of any screening instruments used</li> <li>○ A description of the treatments provided, including all medications prescribed or administered (including the date, type, dose and quality)</li> <li>○ Instructions to the patient, including discussions of risks and benefits with the patient and any significant others</li> <li>○ Results of ongoing monitoring of patient progress (or lack of progress) in terms of pain management and functional improvement</li> <li>○ Notes on evaluations by and consultations with specialists</li> <li>○ Any other information used to support the initiation, continuation, revision, or termination of treatment and the steps taken in response to any aberrant medication use behaviors. These may include actual copies of, or references to, medical records of past hospitalizations or treatments of other providers</li> <li>○ Authorization for release of information to other treatment providers</li> <li>○ The medical record must include all prescription orders for opioid analgesics and other controlled substances, whether written or telephoned. In addition, written instructions for the use of all medications should be given to the patient and documented in the record. The name, telephone number, and address of the patient’s pharmacy also should be recorded to facilitate contact as needed. Records should be up-t-date and maintained in an accessible manner so as to be readily available for review.</li> </ul> </li> </ul>

## Appendix B

### Cover Letter for Survey

Dear Participant,

I invite you to participate in a research study entitled: Nurse Practitioner use of guidelines when initiating and managing chronic pain with opioids in the primary setting. I am currently enrolled in the Family Nurse Practitioner Program at the University of Alaska in Anchorage in Anchorage, Alaska, and am in the process of writing my Master's Project. The purpose of the research is to determine how Nurse Practitioners in Alaska are following recommended guidelines when managing chronic pain with opioids in the primary setting, as well as identifying barriers to following guidelines.

Your participation in this research project is completely voluntary. Consent for participation will be implied with the completion and return of this survey. You may decline altogether, or leave blank any questions you don't wish to answer. There are no known risks or benefits to participation beyond those encountered in everyday life. Your responses will remain confidential and anonymous. No identifying information will be collected. Data from this research will be kept under lock and key and reported only as a collective combined total. No one other than the researchers will know your individual answers to this questionnaire.

If you agree to participate in this project, please answer the questions on the questionnaire as best you can. It should take approximately 10 minutes to complete. Please return the questionnaire by August 31, 2015 in the enclosed preaddressed and stamped envelope.

If you have any questions about this project, feel free to contact Stephanie Klein, RN, BSN, FNP-S.

Thank you for your assistance in this important endeavor.

Sincerely yours,

Stephanie Klein, RN, BSN, OCN, FNP-S  
907-521-2134  
smgregg@alaska.edu  
Principal Investigator

Dr. Elizabeth Driscoll, PhD, FNP-C  
907-786-4594  
Project Chair Person

**Appendix C**

**Survey Tool**

For the following questions, please put in blanks or check the box which best fits your response:

1. What is your age in years?
2. How many years have you been practicing as a licensed Nurse Practitioner?
3. In what region of the state do you practice?
  - Anchorage    Fairbanks    Juneau    Far North
  - Interior    South Central    Southeast    Southwest
4. Is your practice setting:
  - On the road system     Off the road system
5. What is your primary area of practice? Please select all that apply.
  - Primary adult care
  - Primary pediatric care
  - Primary family care
  - Emergency/Urgent care
  - Pain specialty
  - Oncology
  - Hospice/Palliative Care
  - Other, please list:

If you selected pain specialty, oncology or hospice/palliative care, please **STOP** and return survey in preaddressed and stamped envelope. Thank you for your time and participation.

6. Do you prescribe opioids to manage chronic pain in your practice?
  - Yes    No

**If you answered no, please skip to part B.**

**Part A.**

For the following questions, please check the box which best fits your answer:	Always	Almost always	Sometimes	Almost never	Never
<i>When <b>Initiating</b> opioid therapy for chronic pain, how often do you:</i>					
1. Obtain a thorough medical history?					
2. Obtain a thorough mental health history?					
3. Assess for history of substance abuse?					
4. Assess for contraindications and risks of initiating therapy?					
5. Obtain written informed consent?					
6. Obtain a written treatment agreement?					

Running head: OPIOID PRESCRIBING SURVEY OF NURSE PRACTITIONERS

7. Review patient history using the Alaska Prescription Drug Monitoring Program?					
8. Initiate an opioid trial with specific goals?					

For the following questions, please check the box which best fits your answer:	Always	Almost always	Sometimes	Almost never	Never
<i>When <b>Managing</b> chronic pain with opioid therapy, how often do you:</i>					
9. Perform urine or blood testing for therapy compliance and illicit drug use?					
10. Count patient's pills?					
11. Obtain the patient's prescription history from the Alaska Prescription Drug Monitoring Program?					
12. Assess results of chronic opioid therapy using the "5 A's" (Analgesia, Activity, Adverse effects, Aberrant substance-related behavior and Affect)?					
13. Monitor for need or ability to discontinue therapy?					
14. Provide thorough documentation of opioid use and therapy outcomes including: all prescription orders and written instructions for use, medical history, exam and lab history, risk assessment results, treatment descriptions, instructions given to patient, notes on evaluations and consultations with specialists, and authorization for release of information to other treatment providers?					
15. Refer for consultation from a pain, psychiatric, addiction or other specialist?					

Part B.

16. Which barriers prevent providers from following current guidelines? (please check all boxes that apply):

- Unaware of current guidelines
- Unaware of Prescription Drug Monitoring Program
- Unaware of how to access/use Prescription Drug Monitoring Program
- Not enough time during visit
- Inadequate patient insurance
- Fear of patient going to a different provider
- Lack of confidence in addressing potential prescription drug abuse
- Feel unqualified to address
- Unsure of when to refer to specialist
- No patient access to local specialist due to location
- Other barriers please list:

Running head: OPIOID PRESCRIBING SURVEY OF NURSE PRACTITIONERS

Optional: Provide any additional thoughts you may have about managing chronic pain with opioids.

Once complete, please return survey in the provided pre-stamped and addressed envelope within 2 weeks. My sincerest thank you for taking time out of your day to complete this survey.

## Appendix D

### Flyer for Providers

# Chronic Pain Management Resources

- **Federation of State Medical Boards Model Policy**

  - *Alaska Board of Nursing Endorsed Policy*

  - [http://www.fsmb.org/Media/Default/PDF/FSMB/Advocacy/pain\\_policy\\_july2013.pdf](http://www.fsmb.org/Media/Default/PDF/FSMB/Advocacy/pain_policy_july2013.pdf)

- **Alaska's Prescription Drug Monitoring Program resources**

  - *Where to create account and log in*

  - <https://alaska.pmpaware.net/login>

  - *Brochure with contact information with questions*

  - [https://www.commerce.alaska.gov/web/portals/5/pub/PHA\\_HealthCareProvider\\_2016.pdf](https://www.commerce.alaska.gov/web/portals/5/pub/PHA_HealthCareProvider_2016.pdf)

  - *State of Alaska page with user guide and additional resources*

  - <https://www.commerce.alaska.gov/web/cbpl/ProfessionalLicensing/BoardofPharmacy/PrescriptionDrugMonitoringProgram.aspx>

- **Chronic Pain Management with Opioids Education Resources**

  - *Centers for Disease Control*

  - [http://www.cdc.gov/drugoverdose/pdf/guidelines\\_factsheet-a.pdf](http://www.cdc.gov/drugoverdose/pdf/guidelines_factsheet-a.pdf)

  - [http://www.cdc.gov/drugoverdose/pdf/pdo\\_checklist-a.pdf](http://www.cdc.gov/drugoverdose/pdf/pdo_checklist-a.pdf)

  - *American College of Physicians*

  - <https://www.acponline.org/meetings-courses/focused-topics/program-for-safe-opioid-prescribing-now-available-earn-free-cme>

  - *National Institute of Health*

  - <https://www.drugabuse.gov/opioid-pain-management-cmesces>

  - *Substance Abuse and Mental Health Services Administration-supported CME*

  - <http://www.samhsa.gov/medication-assisted-treatment/training-resources/opioid-courses>

  - *PainEDU*

  - <https://www.painedu.org/index.asp>